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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

04/09/2008

Ivan S. Kavrukov, Esq. Cooper & Dunham LLP 1185 Avenue of the Americas New York, NY 10036 EXAMINER

CHENG, PETER L

ART UNIT PAPER NUMBER

2625

DATE MAILED: 04/09/2008

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/662,667 09/15/2003 Takehiro Nakajima 2271/71086 1872

TITLE OF INVENTION: IMAGE PROCESSING SYSTEM, APPARATUS AND METHOD FOR UPDATING A PRINTER PROFILE BASED ON COMPARISON OF PREVIOUS AND CURRENT MEASUREMENTS OF COLOR CHART

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1440 | \$300 | \$0 | \$1740 | 07/09/2008 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

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B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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(571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 7590 04/09/2008 Certificate of Mailing or Transmission Ivan S. Kavrukov, Esq. I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. Cooper & Dunham LLP 1185 Avenue of the Americas New York, NY 10036 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/662,667 09/15/2003 Takehiro Nakajima 2271/71086 1872 TITLE OF INVENTION: IMAGE PROCESSING SYSTEM, APPARATUS AND METHOD FOR UPDATING A PRINTER PROFILE BASED ON COMPARISON OF PREVIOUS AND CURRENT MEASUREMENTS OF COLOR CHART APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1440 \$300 \$0 \$1740 07/09/2008 **EXAMINER** ART UNIT CLASS-SUBCLASS CHENG, PETER L 2625 358-001900 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. ☐ Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this fo Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| 10/662,667 09/15/2003 | | Takehiro Nakajima | 2271/71086 1872 | |
| 75 | 90 04/09/2008 | EXAMINER | | |
| Ivan S. Kavrukov | , Esq. | CHENG, PETER L | | |
| Cooper & Dunham | | ART UNIT | PAPER NUMBER | |
| 1185 Avenue of the New York, NY 100 | | | 2625 DATE MAILED: 04/09/200 | 8 |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 976 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 976 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

| 2. | | Application No. | Applicant(s) | | | |
|---|--|---|---|--|--|--|
| Notice of Allowability Examiner PETER L. CHENG 2625 | | 10/662 667 | NAKAJIMA TAKEHIRO | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence addressAla claims being allowable, PROSECUTION ON THE MERTS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a bottee of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. | Notice of Allowability | · | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence addressAla claims being allowable, PROSECUTION ON THE MERTS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a bottee of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. | | PETER L. CHENG | 2625 | | | |
| 2. | All claims being allowable, PROSECUTION ON THE MERITS IS (herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHT. | ars on the cover sheet with the (OR REMAINS) CLOSED in this a or other appropriate communication GHTS. This application is subject | correspondence address pplication. If not included on will be mailed in due course. THIS | | | |
| 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date (dentifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.12(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BloLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Aktachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material | 1. \boxtimes This communication is responsive to <u>3/12/2008</u> . | | | | | |
| a) All b) Some* c) None of the: 1. | 2. ☑ The allowed claim(s) is/are <u>2-4,6-23,25 and 27-37</u> . | | | | | |
| (b) | a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give 5. CORRECTED DRAWINGS (as "replacement sheets") must (a) including changes required by the Notice of Draftsperson. | been received. been received in Application No. cuments have been received in this of this communication to file a replicant of this application. Itted. Note the attached EXAMINE is reason(s) why the oath or declared to be submitted. The submitted of the submitted of the submitted of the submitted. | s national stage application from the y complying with the requirements R'S AMENDMENT or NOTICE OF ration is deficient. | | | |
| Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material 5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date 7. ☐ Examiner's Amendment/Comment 8. ☑ Examiner's Statement of Reasons for Allowance | (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). | | | | | |
| | Attachment(s) 1. ☑ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit | 5. ☐ Notice of Informal 6. ☐ Interview Summar Paper No./Mail D 7. ☐ Examiner's Amend 8. ☑ Examiner's Staten 9. ☐ Other | Patent Application y (PTO-413), ate dment/Comment | | | |
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Allowable Subject Matter

1. Claims 2 - 4, 6 - 23, 25 and 27 - 37 are allowed. The following is an examiner's statement of reasons for allowance.

Claims 4, 21, 23, 25 and 37 are respectively directed to

- an image processing apparatus,
- an image processing system,
- an image forming apparatus,
- an image processing method, and
- a computer readable medium tangibly embodying a program of instructions
 executable by a computer to perform a method

Claims 4, 21 and 23 identify the uniquely distinct features of:

wherein the arithmetic unit <u>determines the number of color patches</u> based on an evaluation standard,

wherein the <u>evaluation standard includes</u> a newly measured patch value and <u>an</u> <u>average of patch values previously measured</u> and stored as the history information

Similarly, claims 25 and 37 identify the uniquely distinct features of:

wherein <u>the number of color patches is determined</u> based on an evaluation standard,

wherein the <u>evaluation standard includes a newly measured patch value and an</u>
<u>average of patch values previously measured</u> and stored as the history
information.

Claims 6 and 27 are respectively directed to

- an image processing apparatus, and
- an image processing method,

Claim 6 identifies the uniquely distinct features of:

an <u>arithmetic unit that compares</u> the history information with information of new measurement of the color chart <u>to determine number of color patches</u>;

wherein the arithmetic unit compares a first difference with a second difference,

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wherein the first difference is a difference between a newly measured patch value and a patch value measured last time and stored as the history information,

and the <u>second difference is a difference between the newly measured patch</u>

<u>value and an average value of the patch values previously measured</u> and stored

as the history information,

and when the first difference is equal to or greater than the second difference,
the arithmetic unit determines the number of color patches based on a third
difference,

wherein the third difference is a difference between the newly measured patch value and a patch value measured last but one.

Similarly, claim 27 identifies the uniquely distinct features of:

<u>comparing</u> the history information with information of new measurement of the color chart <u>to determine number of color patches</u>;

wherein the comparing includes <u>comparing a first difference with a second</u> <u>difference</u>,

wherein the first difference is a difference between a newly measured patch value and a patch value measured last time and stored as the history information.

and the <u>second difference is a difference between the newly measured patch</u>

<u>value and an average value of the patch values previously measured</u> and stored

as the history information,

and <u>determining the number of color patches based on a third difference, when</u>
the first difference is equal to or greater than the second difference,

wherein the third difference is a difference between the newly measured patch value and a patch value measured last but one.

Claims 7 and 28 are respectively directed to

- an image processing apparatus, and
- an image processing method,

Claim 7 identifies the uniquely distinct features of:

an <u>arithmetic unit that compares</u> the history information with information of new measurement of the color chart <u>to determine number of color patches</u>;

wherein the arithmetic unit compares a first difference with a second difference,

wherein the first difference is a difference between a newly measured patch value and a patch value measured last time and stored as the history information,

and the <u>second difference is a difference between the newly measured patch</u>

<u>value and an average value of the patch values previously measured</u> and stored as the history information,

and when the first difference is less than the second difference, the arithmetic unit determines the number of color patches based on a third difference,

wherein the third difference is a difference between the newly measured patch
value and a measured patch value having a minimum difference from a
representative vector indicating a representative color.

Similarly, claim 28 identifies the uniquely distinct features of:

<u>comparing</u> the history information with information of new measurement of the color chart <u>to determine number of color patches</u>;

wherein the comparing includes <u>comparing a first difference with a second</u> difference,

wherein the first difference is a difference between a newly measured patch value and a patch value measured last time and stored as the history information.

and the <u>second difference is a difference between the newly measured patch</u>

<u>value and an average value of the patch values previously measured</u> and stored

as the history information,

and <u>determining the number of color patches based on a third difference, when</u> the first difference is less than the second difference,

wherein the third difference is a difference between the newly measured patch
value and a measured patch value having a minimum difference from a

representative vector indicating a representative color.

Applicant's claims include elements which are not taught by the <u>prior art</u> nor rendered obvious. None of the references cited in the final office action, **KUMADA [US Patent Application 2002/0145744 A1]**, **BALASUBRAMANIAN [US Patent 7,064,860 B1]**, or **KULKARNI [US Patent 6,870,636 B2]** teach these limitations.

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Conclusion

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Peter L. Cheng whose telephone number is 571-270-

3007. The examiner can normally be reached on MONDAY - FRIDAY, 8:30 AM - 6:00

PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, King Y. Poon can be reached on 571-272-7440. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/ Supervisory Patent Examiner, Art Unit 2625 /PLC/ April 9, 2008